* A B - 3 1 8 5 *

AB-3185

Third Year B. Sc. (Sem. V) Examination

March/April – 2015

Electronics : Paper - VII

(Analog Communication)

Time : **2** Hours] [Total Marks : **50**

Instruction :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **THIRD YEAR B. SC. (SEM. V)**

Name of the Subject :

☛ **ELECTRONICS : PAPER - VII**

☛Subject Code No. : **3 1 8 5** ☛Section No. (1, 2,.....) : **Nil**

Seat No. :

Student's Signature

(2) Figure .on the right indicates full marks.
(3) All symbols and abbreviations have their usual meaning.
(4) Non-programmable calculators are allowed.
(5) Q.I is compulsory.
(6) Assume data if necessary.

1 Answer in short **8**

(a) Define " Modulation"
(b) Why we need detection in communication?
(c) Write the advantages and disadvantages of AM
(d) Write the full name of SSB, DSB, PM , FM

2 (a) What is noise? Explain various types of external noise. **8**

(b) Explain basic principle of an antenna. **6**

OR

(a) Discuss characteristic impedance of a transmission line and explain the methods of its calculation. **8**

(b) Explain sky wave propagation in detail. **6**

3	(a)	Derive the relation between the output power of an AM transmitter and the depth of modulation	**7**
	(b)	What is SSB ? Briefly explain it.	**4**
	(c)	A 400 W carrier is modulated to depth of 75% , calculate the total power in the modulated wave.	**3**

OR

3	(a)	How to suppress the unwanted side band? Explain any one technique in detail.	**7**
	(b)	Explain working of a Balance modulator.	**7**

4	Write short notes on **any two** :		**14**
	(a)	Internal Noise	
	(b)	Losses in transmission line	
	(c)	Radiation pattern of an antenna	
	(d)	DSB Suppressed carrier modulation	